Impulsive Buying Behavior of China's Generation Z in Online and Offline Shopping: A Comparative Analysis of Motivation, Contexts, and Decision-making Process

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Abstract: Generation Z in China is increasingly becoming a prominent consumer segment, characterized by unique shopping behaviors. Marketers aiming to properly target this group must have a thorough awareness of the psychological and environmental factors driving their impulsive buying habits. This study investigates the impulsive purchasing behavior of Chinese Generation Z in online and offline shopping contexts, focusing on the roles of shopping motivation, shopping situations, and decision-making processes. Statistical methods including regression and variance analysis were used to investigate the correlations between 406 survey participants' responses and impulsive purchase behavior. The results reveal that shopping motivation, shopping situations, and decision-making processes all significantly and positively influence impulsive buying behavior. Additionally, differences in impulsive buying behavior were observed across various demographic groups, including age, gender, city type, and income level. These findings provide valuable insights for marketers aiming to tailor strategies to effectively engage Generation Z consumers in both online and offline shopping environments.

Keywords: Generation Z, Impulsive Buying, Online Shopping, Offline Shopping, Shopping Motivation

1. Introduction

Exhibiting unique shopping patterns, especially impulsive purchases, Generation Z has become a major force in the global consumer market in the digital age [1]. The digital era has positioned Generation Z as a significant influence in the global consumer industry, demonstrating unique shopping patterns, especially impulsive purchasing [2]. Online shopping is driven by convenience, tailored recommendations, and promotions [3]. Offline shopping, on the other hand, is shaped by in-store experiences and social interactions that significantly influence decision-making [4]. Rapid technological developments and social media's influence on these behaviors highlight the need to know how Generation Z participates in impulsive purchasing across both platforms [5]. While existing research has explored impulsive buying motivations and decision-making processes, most studies focus on either online or offline contexts separately [6, 7]. There is a gap in comparative research on impulsive buying behaviors across both environments [8].

This research will explore three key questions: First, how do the motivations for impulsive buying differ between online and offline shopping? Second, how do shopping contexts, such as holiday

promotions, influence impulsive buying across these channels? Third, how do decision-making processes vary in online versus offline shopping for impulsive purchases? By addressing these questions, the study aims to provide a comparative analysis of impulsive buying behaviors across both channels.

In order to evaluate the shopping behaviors, motivations, shopping contexts, and decision-making processes of Chinese Generation Z consumers, this study will employ a quantitative approach and collect data through a survey. The survey will include questions on impulsive buying, as well as demographic information, to facilitate stratified analysis. Statistical methods such as regression and variance analysis will be applied to determine the impact of different shopping channels on impulsive buying behavior.

The study fills a gap in the literature on the impulsive buying behaviors of Chinese Generation Z across online and offline shopping channels, offering theoretical contributions to consumer behavior and practical insights for brands to refine their marketing strategies [9].

2. Methodology

A structured online survey was designed to assess the impulsive buying behavior of Chinese Generation Z. The 13 questions in the survey covered demographic data—age, gender, city type, disposable income—as well as behavioral aspects connected to impulsive buying. Specifically, the survey aimed to capture participants' shopping motivations, perceptions of shopping contexts, and decision-making processes in both online and offline shopping scenarios.

To guarantee widespread coverage of Generation Z in China across all areas and socioeconomic backgrounds, the questionnaire was disseminated using social media platforms such as WeChat and Weibo. A total of 406 valid responses were collected, providing a diverse dataset for analysis. It included both closed-ended and matrix questions to gather detailed insights into respondents' shopping habits and impulsive buying tendencies. For instance, participants were instructed to assess the influence of various factors, such as promotions and personalized recommendations, on their online and offline impulsive purchasing behaviors using a 1 to 5 Likert scale. Furthermore, the survey documented the frequency and intensity of impulsive buying incidents, along with the emotional responses experienced post-purchase.

Participants were instructed to answer based on their real-life shopping experiences over the past three months. This ensured that the data reflected current consumer behaviors and attitudes. Respondents were assured of the confidentiality of their responses, with all data being used strictly for academic research purposes.

ANOVA and linear regression were the two main statistical techniques used to assess the data. The associations between shopping motivation, shopping setting, and decision-making process and impulsive purchase behavior were examined using linear regression. ANOVA was employed to examine whether demographic factors influenced impulsive buying behavior. The goal was to identify any significant differences in impulsivity across different demographic segments.

3. Results and analysis

This section presents the results of the linear regression and ANOVA analyses, which were conducted to explore the impact of key factors—shopping motivation, shopping context, and decision-making process—on impulsive buying behavior among Chinese Generation Z consumers. The analysis aims to provide insights into how different psychological and situational factors contribute to impulsivity in both online and offline shopping environments.

3.1. Linear regression analysis

Linear regression analysis was first employed to assess the relationship between three independent variables—shopping motivation, shopping context, and decision-making process—and the dependent variable, impulsive buying behavior. The results from these analyses indicated significant effects of all three factors on impulsive buying tendencies.

3.1.1. Shopping motivation and impulsive buying behavior

Table 1: Linear regression analysis results (n=406)

	Unstandardized Coefficients		Standardized Coefficients	t	p	Collinearity Diagnostics	
	B	Std. Error	Beta			VIF	Tolerance
Constant	1.654	0.168	-	9.838	0.000**	-	-
Shopping Motivation	0.470	0.049	0.429	9.535	0.000**	1.000	1.000
R²				0.184			
Adjusted R²				0.182			
F				F (1,404)=90.919,p=0.000			
D-W Value				1.528			

* p<0.05 ** p<0.01

As is shown in Table 1 , the first regression model examined shopping motivation as a predictor of impulsive buying behavior. The model revealed a positive and significant relationship between the two variables, with the equation being:

Impulsive Buying Behavior=1.654+0.470×Shopping Motivation

- R^2 = 0.184: This value indicates that shopping motivation explains 18.4% of the variation in impulsive buying behavior. This result indicates that shopping motivation is an important, yet not exclusive, predictor of impulsivity.
- $t = 9.535$, $p = 0.000$ ($p < 0.01$): The coefficient for shopping motivation was statistically significant, suggesting that higher shopping motivation directly correlates with a higher likelihood of impulsive buying. Specifically, for every unit increase in shopping motivation, impulsive buying behavior increases by 0.470 units. This confirms that consumers who exhibit higher levels of shopping motivation are more likely to engage in unplanned purchases.

This finding supports existing research that highlights the role of motivational factors, such as the desire for novelty, social influence, and emotional rewards, in driving impulsive buying behavior. For Generation Z, a digitally native and trend-sensitive group, the increased motivation to shop translates into a higher likelihood of impulsivity.

3.1.2. Shopping context and impulsive buying behavior

Table 2: Linear regression analysis results (n=406)

	Unstandardized Coefficients		Standardized Coefficients	t	p	Collinearity Diagnostics	
	B	Std. Error	Beta			VIF	Tolerance
Constant	1.662	0.161	-	10.305	0.000**	-	-
Shopping Motivation	0.478	0.048	0.443	9.918	0.000**	1.000	1.000
R²			0.196				
Adjusted R²			0.194				
F			F (1,404)=98.367,p=0.000				
D-W Value			1.483				

*p<0.05 **p<0.01

According to Table 2, the second regression model examined the influence of shopping context, which includes promotions, sales environments, and time-limited offers, on impulsive buying behavior. The resulting equation was:

Impulsive Buying Behavior=1.662+0.478×Shopping Context

- $R^2 = 0.196$: Shopping context accounted for 19.6% of the variation in impulsive buying behavior, slightly outperforming shopping motivation in terms of explanatory power.
- t = 9.918, p = 0.000 (p < 0.01): The significant positive coefficient for shopping context (0.478) suggests that impulsive buying is significantly influenced by environmental factors such as promotions and the in-store atmosphere. This indicates that consumers are more likely to act impulsively in environments where the context, such as discounts, flash sales, or limited-time offers, is designed to trigger instant buying decisions.

The significance of the shopping context in influencing impulsive buying behavior is particularly pronounced in offline retail environments, wherein consumers are exposed to immediate sensory stimuli, including the tactile experience of handling products, the visual impact of discounts, and the allure of attractive in-store displays. In online shopping, this effect is often amplified by digital ads, influencer recommendations, and targeted promotions.

3.1.3. Decision-making process and impulsive buying behavior

Table 3: Linear regression analysis results (n=406)

	Unstandardized Coefficients		Standardized Coefficients	t	p	Collinearity Diagnostics	
	B	Std. Error	Beta			VIF	Tolerance
Constant	1.526	0.163	-	9.377	0.000**	-	-
Shopping Motivation	0.531	0.050	0.469	10.682	0.000**	1.000	1.000
R²			0.220				
Adjusted R²			0.218				
F			F (1,404)=114.112,p=0.000				
D-W Value			1.535				

* p<0.05 ** p<0.01

Table 3 reveals that the third regression model focused on the decision-making process as a predictor of impulsive buying behavior. The model's equation was:

Impulsive Buying Behavior=1.526+0.531×Decision Process

- $R^2 = 0.220$: The decision-making process explained the largest proportion of variance in impulsive buying behavior, at 22.0%, among the three factors studied.
- $t = 10.682$, $p = 0.000$ ($p < 0.01$): The positive coefficient for decision-making (0.531) indicates a strong relationship between quicker decision-making and higher impulsivity. The more impulsively a consumer makes decisions—without extensive evaluation or comparison—the more likely they are to make an unplanned purchase.

This finding supports the hypothesis that impulsive buying is often characterized by spontaneous decisions, particularly in environments that encourage quick, emotional reactions. In the context of Generation Z, this behavior is often facilitated by social media, where time-sensitive offers, limited edition products, and influencer endorsements lead to fast, emotional decisions without thorough consideration.

3.2. ANOVA results: demographic differences in impulsive buying behavior

In addition to linear regression analysis, ANOVA was conducted to explore the role of demographic factors—such as age, gender, city type, and income—in shaping impulsive buying behavior among Generation Z consumers. The analysis revealed significant differences across these factors.

3.2.1. Age differences

Table 4: ANOVA results

	Age: (Mean ± SD)			F	p
	14-18 years (n=110)	19-23 years (n=157)	24-29 years (n=139)		
Shopping Motivation	3.45±1.03	3.19±1.01	3.19±0.99	2.745	0.065
Shopping Context	3.43±1.10	3.15±0.99	3.03±0.99	4.889	0.008**
Decision-Making Process	3.34±1.04	3.10±0.94	2.98±0.96	4.160	0.016*
Impulse Buying Behavior	3.72±0.98	3.11±1.09	2.85±1.08	21.431	0.000**

*p<0.05 **p<0.01

Significant age-based differences were observed in the shopping context, decision-making process, and impulsive buying behavior, as detailed in Table 4. Specifically:

- Shopping Context ($F = 4.889$, $p = 0.008**$): The 14-18 age group showed the highest scores, followed by 19-23 and 24-29 age groups. This indicates that younger consumers are more influenced by the shopping environment.
- Decision-Making Process ($F = 4.160$, $p = 0.016*$): The 14-18 age group also exhibited quicker decision-making compared to older groups, highlighting a greater tendency toward impulsivity in younger consumers.
- Impulsive Buying Behavior ($F = 21.431$, $p = 0.000**$): The 14-18 age group demonstrated the highest impulsive buying behavior, followed by the 19-23 group, and the 24-29 group exhibited the least impulsivity. This suggests that age plays a crucial role in the propensity for impulsive purchases, with younger consumers more likely to make spontaneous buying decisions.

3.2.2. Gender differences

Table 5: t-test analysis results

	Gender: (Mean ± SD)		t	p
	Male(n=211)	Female(n=195)		
Shopping Motivation	3.30±1.00	3.21±1.03	0.893	0.372
Shopping Context	3.25±0.99	3.12±1.07	1.348	0.178
Decision-Making Process	3.10±0.97	3.14±0.99	-0.413	0.680
Impulse Buying Behavior	3.06±1.10	3.32±1.11	-2.305	0.022*

* p<0.05 ** p<0.01

The t-test for gender differences (Table5) revealed significant findings in impulsive buying behavior:

- Impulsive Buying Behavior (t = -2.305, p = 0.022*): Females (M = 3.32) exhibited higher levels of impulsive buying behavior than males (M = 3.06), indicating that gender influences how likely consumers are to make impulsive purchases. This aligns with existing research suggesting that women are often more emotionally driven in their purchasing decisions compared to men.

3.2.3. City type differences

Table 6 ANOVA results

	City Type: (Mean ± SD)			F	p
	First-tier Cities (n=106)	Second-tier Cities (n=146)	Third-tier and Below Cities (n=154)		
Shopping Motivation	3.25±1.01	3.10±1.01	3.42±1.01	3.842	0.022*
Shopping Context	3.24±1.02	3.08±1.00	3.25±1.06	1.171	0.311
Decision-Making Process	3.20±0.99	3.01±0.93	3.18±1.02	1.580	0.207
Impulse Buying Behavior	3.16±1.05	3.03±1.12	3.35±1.13	3.279	0.039*

* p<0.05 ** p<0.01

Differences across city types (Table 6) also emerged in shopping motivation and impulsive buying behavior:

- Shopping Motivation (F = 3.842, p = 0.022*): Consumers from third-tier cities reported higher shopping motivation compared to those from second-tier cities, indicating that consumers from less economically developed areas may feel more motivated to engage in shopping to compensate for fewer purchasing opportunities.
- Impulsive Buying Behavior (F = 3.279, p = 0.039*): Consumers from third-tier cities exhibited higher impulsive buying behavior than those from second-tier cities, which suggests that regional factors play a role in impulsivity, possibly due to differences in exposure to marketing or retail experiences.

3.2.4. Income differences

Table 7: ANOVA results

	Monthly Disposable Income (Pocket Money/Salary): (Mean ± SD)					F	p
	Below 1000 RMB (n=75)	1000-2999 RMB (n=117)	3000-4999 RMB (n=148)	5000-9999 RMB (n=47)	10000 RMB and Above (n=19)		
Shopping Motivation	3.17±1.02	3.29±0.99	3.17±1.07	3.41±0.91	3.73±0.84	1.740	0.140
Shopping Context	3.14±0.98	3.16±1.09	3.21±1.03	3.09±1.02	3.62±0.92	1.017	0.398
Decision-Making Process	2.97±0.95	3.04±1.02	3.17±0.95	3.23±1.00	3.59±0.95	1.958	0.100
Impulse Buying Behavior	2.99±1.13	3.04±1.12	3.27±1.09	3.41±1.06	3.63±1.09	2.643	0.033*

* $p<0.05$ ** $p<0.01$

As is shown in Table 7, significant income-based differences in impulsive buying behavior are revealed:

- Impulsive Buying Behavior (F = 2.643, p = 0.033*): Higher disposable income was associated with more frequent impulsive purchases, particularly among those with incomes above 10,000 yuan per month. This suggests that individuals with greater purchasing power are more likely to act on impulse, possibly due to fewer financial constraints when making spontaneous purchases.

4. Discussion

The results of this study provide important insights into the factors that influence impulsive buying behavior among Chinese Generation Z consumers. Shopping motivation, shopping context, and the decision-making process were all found to significantly impact impulsivity, with decision-making speed emerging as the strongest predictor. Younger consumers, females, and those from third-tier cities exhibited higher levels of impulsivity, while those with higher incomes were more likely to make impulsive purchases. These findings underscore the importance of creating targeted marketing strategies that address the emotional triggers and situational factors that drive impulsivity in Generation Z.

5. Conclusion

This study highlights the impulsive purchasing behavior of Chinese Generation Z consumers, providing a comparative analysis of online and offline shopping environments. By examining the roles of shopping motivation, shopping contexts, and decision-making processes, the research offers valuable insights into the factors that drive impulsive purchases among this demographic. The findings reveal that all three factors significantly influence impulsive buying behavior, with notable differences observed across various demographic groups, including age, gender, city type, and income level. Younger individuals, females, residents of lower-tier cities, and those with higher disposable incomes exhibited stronger tendencies toward impulsive buying.

For marketers, the study emphasizes the importance of creating a seamless, engaging shopping experience that resonates with Generation Z's preferences, whether online or offline. Strategies should focus on using promotions, personalized content, and social media influences to trigger impulsive behavior. Furthermore, recognizing the emotional triggers that drive Generation Z's decision-making processes, such as social influence and the desire for instant gratification, will be key to capturing this demographic's attention.

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